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AUTHOR Lutz, John E.
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ABSTRACT

A study investigated the personality factors that could characterize successful performance in the educational linker role of establishing linkages between research and development and the science classroom. Results supported the hypothesized similarity of the linker personality to those of engineers, school superintendents, and business executives. In addition, the linker personality was found to be different, as hypothesized, from that of researchers, but not as different from teachers as expected. It was concluded that there is a distinctive personality for the emergent educational linker role and was suggested that expression of this personality guides the successful accomplishment of the linking process. Finally, linker ability and effectiveness were related to the personality assessments, and educational policy issues were addressed. (JN)

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Who Translates Research Into Practice?
A Look at the Personality Profiles of Educational Engineers

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John E. Lutz
Department of Educational Research and Development
National Technical Institute for the Deaf at
Rochester Institute of Technology

National Association for Research in Science Teaching
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Who Translates Research Into Practice?

A Look at the Personality Profiles of Educational Engineers.

Abstract

Applying research to solving school problems and determining essential elements to translate R & D products into practice have been identified as priorities for research by the National Association for Research in Science Teaching. No work to date, however, has reported on the characteristics of those successfully engaged in research applications in science education.

This study was designed to investigate the personality factors that could characterize successful performance in the educational linker role of establishing linkages between R & D and the school classroom. Results supported the hypothesized similarity of the linker personality to those of engineers, school superintendents, and business executives. In addition, the linker personality was found to be different, as hypothesized, from that of researchers, but not as different from teachers as expected. It was concluded that there is a distinctive personality for the emergent educational linker role and was suggested that expression of this personality guides the successful accomplishment of the linking process. Finally, linker ability and effectiveness were related to the personality assessments and educational policy issues were addressed.

Who Translates Research Into Practice?
A Look at the Personality Profiles
of Educational Engineers

A relationship between individual personality and occupational role has been suggested (Cattell & Drevdahl, 1955; White, 1965). Other literature (Pietrofesa & Splete, 1975) supports the notion that people with similar personality traits tend to engage in similar occupations. Personality characteristics may play an important part in shaping an individual's responses to occupational training and eventual professional performance.

A review of the literature on educational information dissemination traces the recent emergence of educational linking agents (Lutz, Note 1). The linking agent, according to Crandall (1977), is simply an individual who helps others engaged in problem-solving by connecting them to appropriate resources. Generally, the linking agent is viewed as a person or team to help bridge the gap between research information and its operational implementation in schools.

Local school districts continue to identify needs to improve school activities. They continue to request help to evaluate the effectiveness of district curricula, find information on innovative programs, and plan inservice sessions for their staffs. The linking agent, or linker, can help clarify local needs, identify research and development (R&D) outcomes with potential for meeting those needs, and provide linkages between the schools and appropriate R&D resources (Lutz, 1980). Thus, research and the researcher

and teaching and the teacher can be brought together for mutual benefit--research can become more relevant and teaching can become more effective.

In suggesting a parallel between education and engineering, Yager (1978) identified the application of research to solving school problems as a priority area for research in science education. Furthermore, Butts, Capie, Fuller, May, Okey, & Yeany (1978) suggested a study to determine essential elements for translating research into practice as a research priority of the National Association for Research in Science Teaching. Thus, a study of those individuals successfully engaged in the processes of educational engineering by linking research results to the operational realities of the classroom seems appropriate.

No work to date has reported on the personality characteristics of successful linkers, and no attempts have been made to relate a linker personality to the fulfillment of the linker role. If there is a "linking personality," expression of it may guide the linking processes.

The purposes of this preliminary study were:

1) to ascertain whether distinctive personality characteristics exist for the relatively new educational linker occupational group; and

2) to identify factors and implications for further study.

Hypotheses defined for the study included:

Hypothesis 1. The linker personality is similar to those of other professionals involved in activities similar to educational linking; namely, engineers, superintendents, and business executives.

Linkers, engineers, superintendents, and business executives are involved in adaptive processes. They interact with environmental variables to manage

situations and solve problems. They use information produced by others to design applications to be carried out by others.

Hypothesis 2. The linker personality is different from those of other professionals involved in dissimilar activities; namely, researchers and teachers.

Researchers are concerned with the validity of theories, reliability of experiments, and adequacy of methods to observe natural phenomena; they are producers of knowledge. Teachers are concerned with practical affairs of schooling, instructional strategies validated through experience, and real learning by their students; they are consumers of knowledge. Linkers' concerns have been described; they could be considered packagers of knowledge.

Hypothesis 3. The linker personality is different from that of the general population.

The linker should have some personality characteristics different from those of the typical adult.

Hypothesis 4. There is a relationship between the linker personality and skills necessary for successful educational linking.

Personal attributes are translated into individual behaviors as one interacts with the environment. The relationship between the complex character of personality and resultant behavioral expression should be quantifiable.

Method

This study was designed as a pre-experimental analytic survey (Novak, 1963) to investigate the personality traits that could characterize successful performance in the educational linker role.

Although there is no distinction of educational linkers as a formal professional group, linkers can be identified by their activities. Several

linkers were identified according to these criteria: (a) experience of two or more years in research dissemination and application, (b) experience in special projects implementation with expressed enthusiasm for innovative and pragmatic school programming, (c) reputation as a respected educational leader, and (d) skilled in interpersonal relationships and communications. Forty-seven linkers were identified through personal contacts and nominations by colleagues using these criteria. They were invited to participate in the study through a mailed information packet. Included in the packet were a letter of introduction and explanation of the study, an informed consent form, and the study instruments.

The Sixteen Personality Factor Questionnaire (16 PF) was used as the primary study instrument. The 16 PF was designed to assess general personality and personality structure, to provide information about the stability of one's personality, and to construct personality profiles of different occupational groups (Cattell, Eber, & Tatsuoka, 1970). The 16 primary personality factors assessed by the instrument are summarized in Table 1.

Insert Table 1 about here

Self-evaluation data obtained by the 16 PF, however, may be subject to deception. This can be the result of deliberate sabotage (which was not seen as a problem for this study), or it can result from unconscious motivational distortion or uncertainty. The 16 PF includes a Motivational Distortion (MD) Scale to identify the presence of unconscious test distortion. The MD score was used to determine the extent and value of corrections that then could be applied to the personality factor scores obtained from the instrument.

Since the study was largely exploratory and unendowed, published personality profiles from the 16 PF Manual (Cattell, Eber, & Tatsuoka, 1970) were used for the comparative analyses. The analyses followed an adjustment approach which assumed that the mean profile of those experienced in an occupation was an ideal pattern. Two statistics were calculated for these analyses: the pattern similarity coefficient ($r_p = (4K - \Sigma w_j d_j^2)/(4K + \Sigma w_j d_j^2)$, where K equals the median of a χ^2 distribution with degrees of freedom equal to the number of factors used, and $\Sigma w_j d_j^2$ equals the sum of the weighted standard score differences of two profiles over j elements) and the pooled variance t statistic.

A small separate sample was invited to participate in a pilot study to investigate the potential relationship between personality (as defined by the 16 PF) and linker skills (as determined by a self assessment). Linkers were identified from the criteria described previously; a comparison control group was selected from the general population. Both groups completed the 16 PF questionnaire and the Linker Self Assessment Inventory (LSAI).

The LSAI (Gasaway and Erwin, Note 2) is apparently the only instrument of its kind. It was validated by the Illinois Office of Education and the Pennsylvania Department of Education (Stank, Note 3). The LSAI includes assessments of knowledge and skills in seven performance categories defined as critical for linking success: communications, group facilitation, problem solving, power and influence, conflict management, consultation, and evaluation.

Analyses of the data from the pilot study included comparisons of the 16 PF and LSAI scores between linker and control groups and a correlation of the 16 PF and LSAI scores. The pattern similarity coefficient and pooled

variance t statistic were calculated from the 16 PF and LSAI profiles of each group.

Results

Forty-seven linkers were identified for the study; 25 responded with completed data forms, for a return rate of 53%. These participants included 16 males and 9 females representing public schools (n = 8), linking organizations (n = 10), and universities (n = 7).

The data for Hypothesis 1 have been summarized in Figure 1. Personality profiles for linkers, engineers, superintendents, and business executives have been included with the personality factor scores. Inspection of this Figure shows close correspondence (linker group and at least two other groups within 0.5 sten score) on factors A, E, G, H, L, O, Q_1, and Q_3.

Insert Figure 1 about here

Table 2 includes the results of statistical analyses. The pattern similarity coefficient (r_p) was statistically significant for all comparisons, $r_p(16) = .50$, $p<.01$ for linkers-engineers, $r_p(16) = .56$, $p<.01$ for linkers-superintendents, and $r_p(16) = .64$, $p<.01$ for linkers-executives. The common variances were relatively small for linkers-engineers ($r_p^2 = .25$) and linkers-superintendents ($r_p^2 = .36$), but somewhat larger for linkers-business executives ($r_p^2 = .41$). There were significant differences between linkers and engineers on personality factors C, $t(60) = 4.52$, $p<.01$ (linkers were more emotionally stable and realistic about life), I, $t(60) = 4.78$, $p<.01$ (linkers were more tender-minded and emotionally sensitive), and N, $t(60) = -2.94$, $p<.01$ (engineers were more shrewd and polished). Linkers and superintendents

differed on factors M, $t(120) = 3.86$, $p<.01$ (linkers were more imaginative and unconventional) and Q_2, $t(120) = 3.53$, $p<.01$ (linkers were more self-sufficient and resourceful). Only one difference was found between linkers and business executives, and that was on factor C, $t(120) = 2.92$, $p<.01$ (linkers were more emotionally stable). The t statistic was significant for two or more comparisons on factor C, identifying it as the most consistent difference between linkers and the other groups.

Insert Table 2 about here

The data for Hypothesis 2 have been summarized in Figure 2. This includes profiles of linkers, researchers, senior high school teachers, and the general population. Inspection of these data shows correspondence on factors N and Q_1.

Insert Figure 2 about here

Table 3 shows a significant pattern similarity coefficient with the teacher group, $r_p(16) = .48$, $p<.01$ (common variance, $r_p^2 = .23$), but not with the researcher group. There were significant differences between linkers and researchers on personality factors A, $t(120) = 7.44$, $p<.01$ (linkers were more warm-hearted and easy-going), B, $t(120) = -8.23$, $p<.01$ (researchers were more intelligent and capable of abstract thinking), E, $t(120) = -4.00$, $p<.01$ (researchers were more assertive and independent-minded), F, $t(120) = 5.62$, $p<.01$ (linkers were more happy-go-lucky and cheerful), G, $t(120) = 6.24$, $p<.01$ (linkers were more conscientious and planful), O, $t(120) = 4.28$, $p<.01$

(researchers were more unperturbed and self-satisfied), and Q_3, $t(120) = -2.82$, $p<.01$ (researchers were more controlled and followed self-image). Linkers and teachers differed on factors A, $t(120) = 5.28$, $p<.01$ (linkers were more warm-hearted and easy-going), B, $t(120) = 3.43$, $p<.01$ (linkers were more intelligent and capable of abstract thinking), C, $t(120) = 4.21$, $p<.01$ (linkers were more emotionally stable and realistic about life), and G, $t(120) = 2.72$, $p<.01$ (linkers were more conscientious and planful). The t statistic identified factors A, B, and G as the most consistent factor differences between linkers and the other two groups.

Insert Table 3 about here

By definition, mean standard scores of personality factors for the general population were 5.5 and standard deviations were 2.0. The linker profile pattern (shown in Figure 2 and described in Table 3) was not found to be different from the general population linear profile (the pattern similarity coefficient was significant $r_p(16) = .49$, $p<.01$; the common variance was small, $r_p^2 = .24$). Table 3 shows significant differences between linkers and the general population on personality factors A, $t(120) = 2.99$, $p<.01$ (linkers were more warm-hearted and easy-going), B, $t(120) = 4.49$, $p<.01$ (linkers were more intelligent and capable of abstract thinking), C, $t(120) = 3.74$, $p<.01$ (linkers were more emotionally stable and realistic about life), I, $t(120) = 2.74$, $p<.01$ (linkers were more tenderminded and emotionally sensitive), and M, $t(120) = 3.00$, $p<.01$ (linkers were more imaginative and unconventional).

The Pilot Study

Completed data sets were obtained from 10 linkers and 10 people from the general population (controls). Since these samples were so small, no attempt was made to formally relate these data to that previously discussed.

Table 4 summarizes the analyses of the 16 PF scores. The pattern similarity coefficient (r_p) was not significant (it was significant for the same generic groupings in the data displayed in Table 3). There were significant differences between linkers and controls on personality factors A, $t(18) = 4.14$, $p < .01$ (linkers were more warm hearted and outgoing), B, $t(18) = 3.83$, $p < .01$ (linkers were more intelligent and capable of abstract thinking), C, $t(18) = 3.94$, $p < .01$ (linkers were more emotionally stable and realistic about life), I, $t(18) = 4.05$, $p < .01$ (linkers were more tenderminded and emotionally sensitive), M, $t(18) = 4.33$, $p < .01$ (linkers were more imaginative and unconventional), O, $t(18) = -3.64$, $p < .01$ (controls were more apprehensive and insecure), and Q_1, $t(18) = 6.50$, $p < .01$ (controls were more conservative and respecting of traditional ideas). Except for the addition of significant differences between factors O and Q_1, these results parallel those described in Table 3 for the linker and general population groups.

Insert Table 4 about here

Data from the LSAI are summarized in Table 5. Linkers scored significantly higher on the LSAI than did the controls, $t(18) = 13.22$, $p < .01$.

Insert Table 5 about here

The correlation coefficients calculated between LSAI scores and scores from each of the personality factors are summarized in Table 6. Only one relationship was found to be statistically significant. Scores between the LSAI and factor Q_1 show a significant relationship between low scores on the LSAI and the controls' more conservative nature, $r(8) = .78$, $p < .01$ (common variance, $r^2 = .61$).

Insert Table 6 about here

Discussion

Support was found for Hypothesis 1. Linkers were similar to engineers, superintendents, and business executives on eight personality factors (A, E, G, H, L, O, Q_1, and Q_3), while consistently different on only one (factor C). Linkers were, somewhat surprisingly, most similar to business executives in the expression of personality assessed by the 16 PF. The profile pattern of linkers was also found to be similar to that of each of these occupational groups. Thus, we can conclude that the linker personality was similar to those of the engineer, superintendent, and business executive groups--it was associated with the expression of feelings, working with people, leadership, and breaking traditions. However, in contrast to these groups, it was more associated with positive group morale and adjustment to environmental difficulties. These personality characteristics share a correspondence with the role expectations held for educational linkers. Linkers must work with people, first and foremost. They work as colleagues with teachers and administrators and must maintain productive interpersonal relationships to establish local commitment to problem solutions.

Some support was also found for Hypothesis 2, although we can only conclude from this analysis that linkers were different from researchers. Linkers were similar to researchers and teachers on only two personality factors (N and Q_1), while consistently different on three (factors A, B, and G); however, linkers were different from researchers on seven factors. The linker profile pattern was dissimilar to that of researchers but similar to that of teachers.

The data indicated that (as could be expected) linkers, researchers, and teachers were well-informed and inclined to experiment with problem solutions--with this characteristic, they were similar to the engineer-superintendent-executive groups. However, linkers were more open and preferred working with others more than researchers and teachers, who tended to prefer working alone. And linkers tended more toward group leadership than the other two groups, especially when compared to researchers, who tended to disregard social standards. Furthermore, the linker personality was less independent-minded, confident, and sure of a specific pattern of behavior than that of the researchers.

These attributes, too, are consistent with expectations held for the linker. The acceptance by others of new ideas and strategies recommended by the linker leads to some linker dependence upon group accepting behaviors. Thus, the linker would tend to be less decisive regarding a set behavioral pattern toward groups whose needs and resources may vary greatly from one school to another.

Although there were differences between linkers and the general population on five factors, the personality profiles were not significantly different.

Linkers were somewhat different, but more similar to the typical adult than expected. We can conclude, then, that there was mixed support for Hypothesis 3; the pattern similarity coefficient was significant, but there were five significantly different factors.

Generally, when compared to the general population, the linker personality was more group-oriented, intellectually adaptable, and imaginative. These characteristics are appropriate for the design requirements of linking. The design process encourages the use of imaginative skills to apply knowledge gained from research and practice to the special needs of schools.

Data from the pilot study to investigate skill and personality relationships tend to support Hypothesis 4. The small independent samples gave some corroboration to the differences between linker personality factors and those of the general population found in the personality description study. In addition, the LSAI discriminated between linkers and controls in those categories included in it. Finally, a relationship between the linker personality and linking skills was supported by the correlations between the 16 PF and the LSAI. Limitations in sample size and instrumentation prevent statements of broader generalizations from being made, but this pilot study has identified an area holding some promise for future research.

A personality description of educational linkers can be constructed from this data. The educational linkers participating in this study can be characterarized by personalities that are warm-hearted, intelligent, emotionally stable, somewhat assertive, conscientious, experimenting, and somewhat controlled. They indicated preferences to work with people, exert leadership, and contribute to positive group morale. These attributes might be translated

into the skill categories of group dynamics and interpersonal skills. Preference was also indicated to break tradition, be imaginative, and experiment with solutions. These seem to relate to creativity skills. And the indicated attributes of intellectual adaptability might be translated into knowledge skills. Profitable preservice and inservice training for educational linkers might be planned around these three skill areas.

Limitations

Several limitations of this study must be addressed. There can be danger from overgeneralizations deduced from self-reported data. One's perceptions of self can be influenced by many internal and external factors. Self-reported perceptions of success, skills, and personal attributes may be quite different from direct observations made by more objective means. Nevertheless, it does provide useful information and identifies factors and implications for further study.

It is difficult at best to assess something as complex as the human personality through a paper and pencil exercise. However, the 16 PF is generally regarded as one of the better measures of personality currently available, at least until some resolution to the current personality assessment controversy has been found (Block, Weiss, & Thorne, 1979; Shweder & D'Andrade, 1979).

Also, the pilot study of the relationship between linker ability and personality involved a limited sample and a relatively primitive means of assessment. It would have been preferable to observe each linker in action to obtain a more empirical rating of performance. That was impossible for this study, and alternatives to the LSAI for assessing linker skills were not available.

Work with extant data also introduced some limitations. The comparative data for engineers, superintendents, business executives, researchers, and teachers were obtained from the 16 PF Manual. It could only be assumed that these data were reliable and valid. And since raw data were not available, statistical analyses were limited.

The selection criteria to identify potential participants included some subjectivity, although the attributes and skills described from the data were consistent with the selection criteria originally determined for the study. Also, a larger sample size would have been appropriate for a study of this nature, but the linker pool was limited. Replication should be considered to enlarge this data pool and allow separate analyses of male and female linkers, of linkers from different organizational frameworks, and of comparisons between linkers and other occupational areas.

In spite of these limitations, the main purpose of the study was fulfilled. There appears to be a distinctive personality for the occupational category of educational linkers, and there may be a relationship between this personality and its fulfillment through professional performance.

Implications

Behavioral descriptions have been shown to be related to general personality impressions (Hastie & Kumar, 1979). If impression controls the encoding, retention, and retrieval of specific behavioral descriptions, perhaps personality impression also has some control over behavioral expectation and subsequent expression of the personality through behavioral performance.

From this study, it can be assumed that there is a linker personality. The expression of this personality in the linker role might guide the successful performance of the linking process. If the linker personality can be better understood, then linker performance could be more adequately explained. Additionally, the selection and training of linkers could become more effective. A correlation of linking competence with each personality factor score to determine a predictive process for actual performance would be an appropriate extension of this study. It would also be useful to determine optimal profiles for linking effectiveness.

If personality attributes can be translated into behavioral performance and skill areas, then optimal personality attributes can be translated into psychomotor competency statements for training programs. (Influences of the converse must also be considered; that is, will proficiency in particular skill domains impact upon the assessment of personality factors?) Obviously, much remains to be studied about the educational linker and successful linking processes. Additional research could be implemented to investigate the consistency of traits within and between linkers, executives, engineers, superintendents, researchers, and teachers, and the reliability of similarities and differences in personality factors. Experimental research is also needed to corroborate the assumptions stated above regarding the translative nature of personality and occupational skills.

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Table 1

The Primary Personality Factors Assessed by the 16 PF

Low Score	Personality Factor	High Score
Reserved	A	Warm-hearted
Less intelligent	B	More intelligent
Affected by feelings	C	Emotionally stable
Humble	E	Assertive
Sober	F	Happy-go-lucky
Expedient	G	Conscientious
Shy	H	Venturesome
Tough-minded	I	Tender-minded
Trusting	L	Suspicious
Practical	M	Imaginative
Forthright	N	Shrewd
Unperturbed	O	Apprehensive
Conservative	Q_1	Experimenting
Group oriented	Q_2	Self-sufficient
Undisciplined self-conflict	Q_3	Controlled
Relaxed	Q_4	Tense

Table 2

Comparison of Linker Personality Factor Scores with those of Engineers, Superintendents, and Business Executives

Personality	Linkers		Engineers			Superintendents			Executives		
Factor	M	SD	M	SD	t	M	SD	t	M	SD	t
A	6.7	2.3	6.6	1.8	.22	6.6	1.8	.25	7.8	2.5	-2.08
B	7.1	1.5	8.2	1.9	-2.16	6.8	1.8	1.32	7.5	1.6	- .59
C	7.0	2.0	5.0	1.9	4.52*	6.1	1.7	2.41	5.7	2.1	2.92*
E	6.1	2.0	6.0	2.3	.19	5.3	1.9	1.95	5.8	2.6	.55
F	6.1	1.7	5.7	2.2	.83	5.3	1.5	2.44	5.3	2.1	1.82
G	6.3	1.8	6.3	1.7	.00	6.2	1.5	.30	5.5	2.1	1.81
H	5.8	2.1	5.9	2.2	- .20	5.9	1.8	- .25	6.6	1.9	-1.95
I	6.6	2.0	4.4	2.0	4.78*	6.5	1.8	.25	5.6	2.1	2.24
L	5.1	1.5	6.2	2.3	-2.24	5.3	2.1	- .46	5.4	2.1	- .69
M	6.7	1.6	6.4	1.9	.71	5.3	1.7	3.86*	5.7	2.1	2.29
N	5.6	2.0	6.8	1.7	-2.94*	5.6	2.2	.00	6.2	2.1	-1.34
O	5.5	1.7	5.0	2.2	1.04	5.2	1.8	.78	5.5	2.0	.00
Q_1	6.3	1.3	6.6	1.9	- .74	5.5	1.9	2.03	6.4	1.9	- .25
Q_2	6.1	1.8	6.2	2.0	- .22	4.8	1.7	3.53*	5.5	2.6	1.12
Q_3	5.8	2.3	6.0	1.7	- .47	6.2	1.8	-1.00	5.8	2.3	.00
Q_4	5.8	2.1	4.8	1.7	2.41	5.1	2.0	1.62	5.3	2.0	1.16
n	25		77			164			178		
r_p	—		.50*			.56*			.64*		

* $p < .01$.

Table 3

Comparison of Linker Personality Factor Scores with those of Researchers, High School Teachers, and the General Population

Personality Factor	Linkers		Researchers			Teachers			General Population		
	M	SD	M	SD	t	M	SD	t	M	SD	t
A	6.7	2.3	3.4	2.0	7.44*	4.4	2.0	5.28*	5.5	2.0	2.99*
B	7.1	1.5	9.8	0.8	-8.23*	6.2	1.5	3.43*	5.5	2.0	4.49*
C	7.0	2.0	6.9	1.0	.39	5.2	2.0	4.21*	5.5	2.0	3.74*
E	6.1	2.0	7.2	1.1	-4.00*	5.3	1.8	2.05	5.5	2.0	1.50
F	6.1	1.7	3.5	2.2	5.62*	5.4	1.8	1.83	5.5	2.0	1.50
G	6.3	1.8	3.4	2.2	6.24*	5.1	2.1	2.72*	5.5	2.0	2.00
H	5.8	2.1	6.5	1.9	-1.67	5.3	2.0	1.16	5.5	2.0	.75
I	6.6	2.0	7.1	1.8	-1.25	5.8	2.2	1.72	5.5	2.0	2.74*
L	5.1	1.5	4.1	1.9	2.50	5.6	2.3	-1.05	5.5	2.0	-1.00
M	6.7	1.6	5.6	2.4	2.21	6.0	2.0	1.67	5.5	2.0	3.00*
N	5.6	2.0	5.5	1.8	.25	5.4	1.9	.49	5.5	2.0	.25
O	5.5	1.7	3.6	2.1	4.28*	5.8	1.9	- .75	5.5	2.0	.00
Q_1	6.3	1.3	6.2	1.3	.36	5.9	2.0	.97	5.5	2.0	2.00
Q_2	6.1	1.8	6.5	1.4	-1.26	5.6	1.9	1.24	5.5	2.0	1.25
Q_3	5.8	2.3	6.8	1.5	-2.82*	5.2	2.0	1.38	5.5	2.0	.75
Q_4	5.8	2.1	5.1	1.9	1.67	5.2	1.8	1.53	5.5	2.0	.75
n	25		144			177			5077		
r_p	—		-.06			.48*			.49*		

* $p < .01$.

Table 4

Pilot Comparison of Linker Personality Factor Scores With Those of the Control Group

Personality Factor	Linkers		Controls		
	M	SD	M	SD	t
A	6.5	1.1	4.5	1.1	4.14*
B	7.6	1.4	5.3	1.2	3.83*
C	7.5	1.1	5.6	1.1	3.94*
E	6.3	1.2	6.1	1.1	.40
F	6.0	.9	4.9	1.1	2.40
G	7.1	1.4	8.2	1.0	-2.03
H	5.9	1.1	7.0	1.1	-2.28
I	6.9	1.0	5.1	1.0	4.05*
L	4.9	1.2	6.1	1.1	-2.33
M	6.9	1.1	4.6	1.3	4.33*
N	5.0	1.2	4.8	1.1	.39
O	4.9	1.1	6.8	1.2	-3.64*
Q_1	6.1	1.2	2.9	1.0	6.50*
Q_2	5.9	1.2	7.1	1.2	-2.24
Q_3	6.2	1.3	7.2	1.1	-1.82
Q_4	6.0	1.1	4.9	1.5	1.88
n		10		10	
r_p		-		.16	

*$p < .01$

Table 5

Pilot Comparison of Linker and Control Group Scores on the Linker Self Assessment Inventory

	Linkers		Controls
n	10		10
M	76.9		46.4
SD	3.8		6.2
t		13.22*	

Note. Maximum score = 84.

*$p < .01$

Table 6

Pilot Correlation of Personality Factor Scores

With Linker Self-Assessment Inventory Scores

Personality Factor	r	Personality Factor	r
A	.70	L	.31
B	.68	M	.69
C	.69	N	.25
E	.20	O	-.58
F	.52	Q_1	.78*
G	-.43	Q_2	-.35
H	-.42	Q_3	-.30
I	.65	Q_4	.46

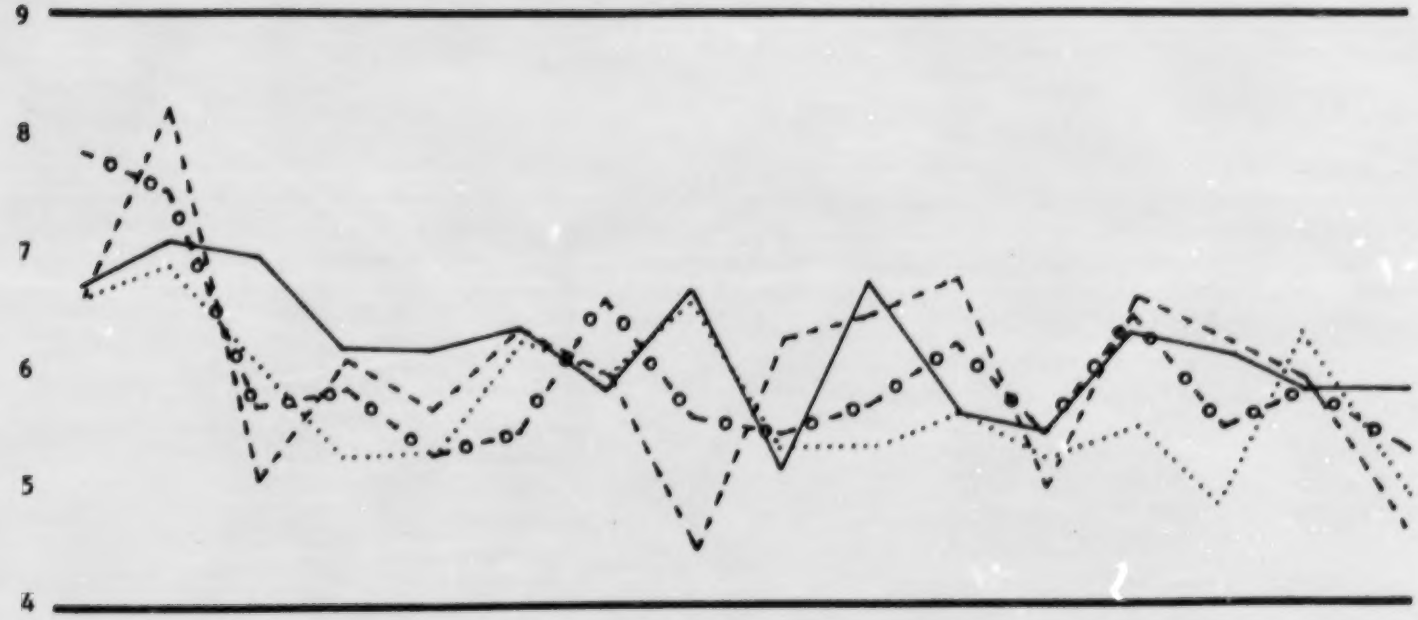
*$p < .01$

Figure Captions

Figure 1. Profiles and factor scores for educational linkers, engineers, school superintendents, and business executives (Hypothesis 1).

Figure 2. Profiles and factor scores for educational linkers, researchers, high school teachers, and the general population (Hypotheses 2 and 3).

Personality Profiles:

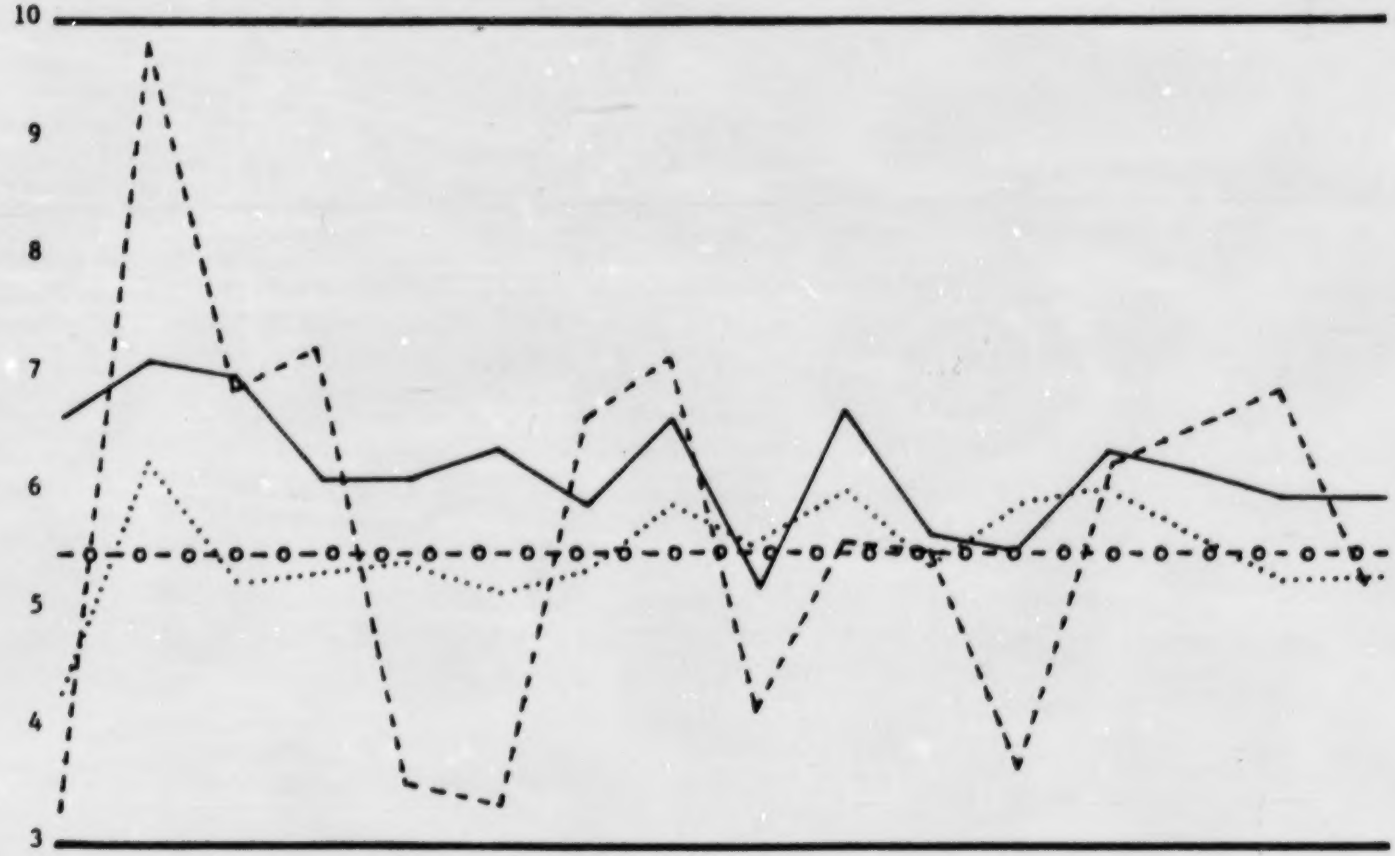


Mean Sten Scores:

	A	B	C	E	F	G	H	I	L	M	N	O	Q_1	Q_2	Q_3	Q_4
—— Linkers	6.7	7.1	7.0	6.1	6.1	6.3	5.8	6.6	5.1	6.7	5.6	5.5	6.3	6.1	5.8	5.8
– – Engineers[a]	6.6	8.2	5.0	6.0	5.7	6.3	5.9	4.4	6.2	6.4	6.8	5.0	6.6	6.2	6.0	4.8
····· Superintendents[a]	6.6	6.8	6.1	5.3	5.3	6.2	5.9	6.5	5.3	5.3	5.6	5.2	5.5	4.8	6.2	5.1
–o– Business Executives[a]	7.8	7.5	5.7	5.8	5.3	5.5	6.6	5.6	5.4	5.7	6.2	5.5	6.4	5.5	5.8	5.3

[a]data obtained from 16 PF Manual (Cattell, Eber, & Tatsuoka, 1970)

Personality Profiles:



	A	B	C	E	F	G	H	I	L	M	N	O	Q_1	Q_2	Q_3	Q_4
	Personality Factors															
Mean Sten Scores:																
—— Linkers	6.7	7.1	7.0	6.1	6.1	6.3	5.8	6.6	5.1	6.7	5.6	5.5	6.3	6.1	5.8	5.8
– – Researchers[a]	3.4	9.8	6.9	7.2	3.5	3.4	6.5	7.1	4.1	5.6	5.5	3.6	6.2	6.5	6.8	5.1
····· High School Teachers[a]	4.4	6.2	5.2	5.3	5.4	5.1	5.3	5.8	5.6	6.0	5.4	5.8	5.9	5.6	5.2	5.2
-o- General Population[a]	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5

[a]data obtained from 16 PF Manual (Cattell, Eber, & Tatsuoka, 1970)